



EPA Region 6 Brownfields Forum

Austin Energy Green Building Program

May 2005



Why Green Building?

- The Kyoto Protocol calls for the U.S. to reduce emission levels 7% by 2010 from 1990 levels.

The Department of Energy estimates this will require conservation of 37% (7% in cuts plus 30% estimated growth).

- Buildings use more than 1/3 of all energy consumed in the U.S.

More efficient buildings = less energy use = fewer emissions.



Why Green Building?

- O.S.H.A. reports that 30% of the 70 million U.S. employees working indoors suffers from poor air quality.
- The National Association of Home Builders estimates that 28% of landfill space is composed of construction and demolition waste.



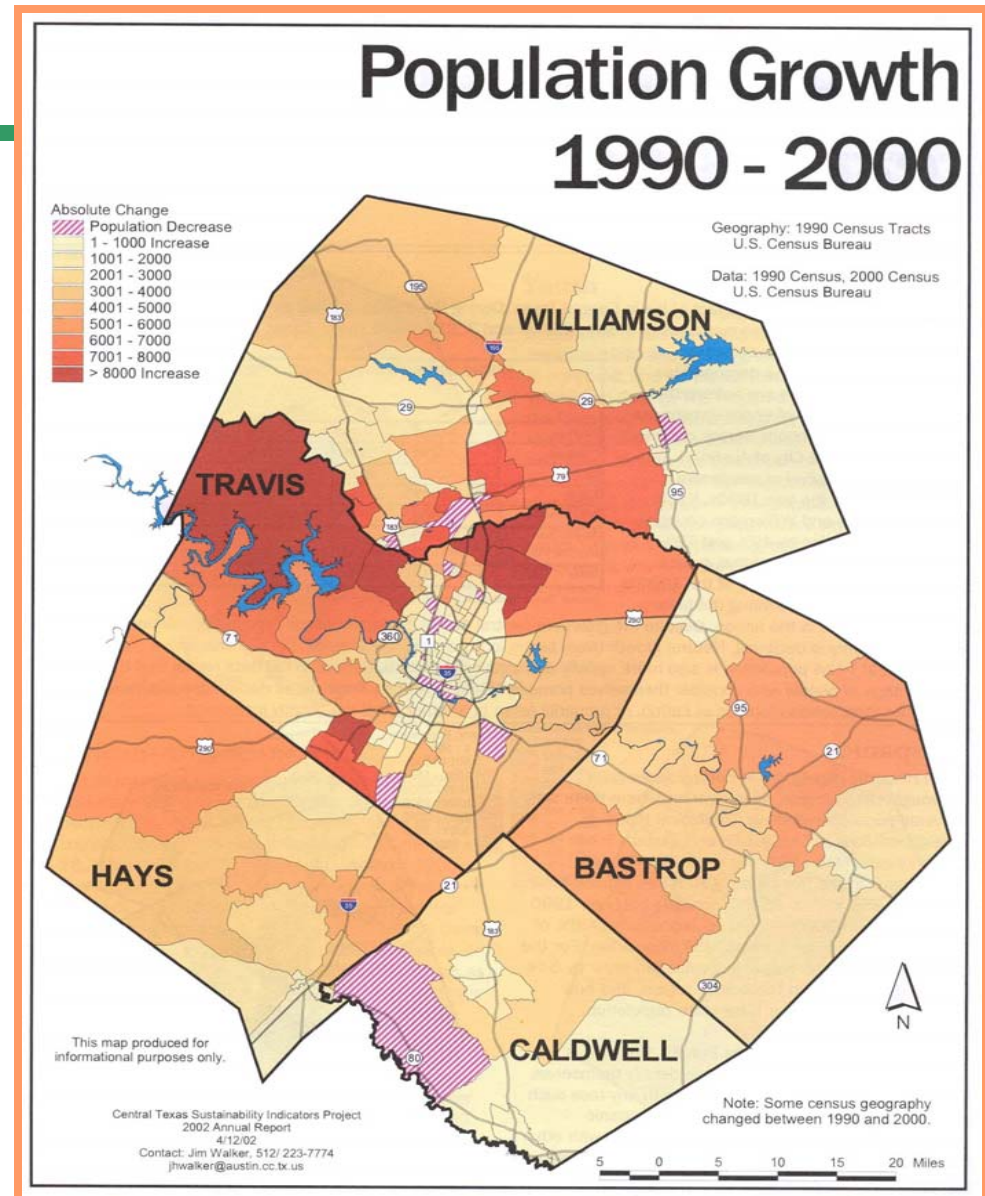
An aerial photograph of Austin, Texas, featuring a large, lush green forest in the foreground and a city skyline with various skyscrapers in the background. The text "Why Green Building in Austin?" is overlaid in the center of the image.

Why Green Building in Austin?

AUSTIN GROWTH 1990-2000

Population

- 16th in Size Rank
656,562
- 1st in Growth Rank
41.0% increase
- Density Increase
22.1%
- Land Area Increase
15.5%



AUSTIN GROWTH 1990-2000

Automobile Traffic

- 7th in nation for time spent commuting - 45 person-hours of delay per year
- 78% of commuters travel alone - no carpool lanes
- Mass transit insignificant
- Downtown residential units not allowed above a business until 1990



First Environmental Rating Program in the United States

In 1991, the City of Austin decided to develop a green building program to counter the negative effects of rapid growth.

- **Built on City's Energy Star Program in existence since 1982**
- **Energy Star Program scope expanded to look at broader range of environmental and community issues**



Greener Buildings Could:

- Reduce need for water, energy, and material (and accompanying pollution)
- Reduce storm-water runoff (and accompanying pollution)
- Reduce need for transportation (and accompanying pollution)
- Improve indoor air quality and natural lighting (improving worker productivity and the health of residents)
- And much, much more

Mission of the Austin Energy Green Building Program

To accelerate the integration of sustainable building practices and products into mainstream building through marketing, education and technology transfer



GREEN BUILDING PROGRAM

■ Development

- 1992--Green Building Program begun: residential only
- 1994--City Council directs GBP and Public Works Department to develop Sustainable Guidelines for new airport and all municipal buildings.
- 1995--Commercial group begun
- 1999--Multi-family group begun
- 2001--*Manage It Green* Consulting Program begun
- 2000--2nd Sustainable Resolution passed by Council:
LEED™ Required for all municipal buildings

GREEN BUILDING PROGRAM

■ Awards

Dozens of awards received

- **First**
United Nations award at Rio Earth Summit for Local Government Initiative (1992)
- **Latest**
USGBC Public Sector Leadership Award (2003)



GREEN BUILDING PROGRAM

■ Components

Education and marketing
to affect both supply and demand

- Building ratings
- Educational materials
- Seminars and workshops
- Marketing
- Consulting services

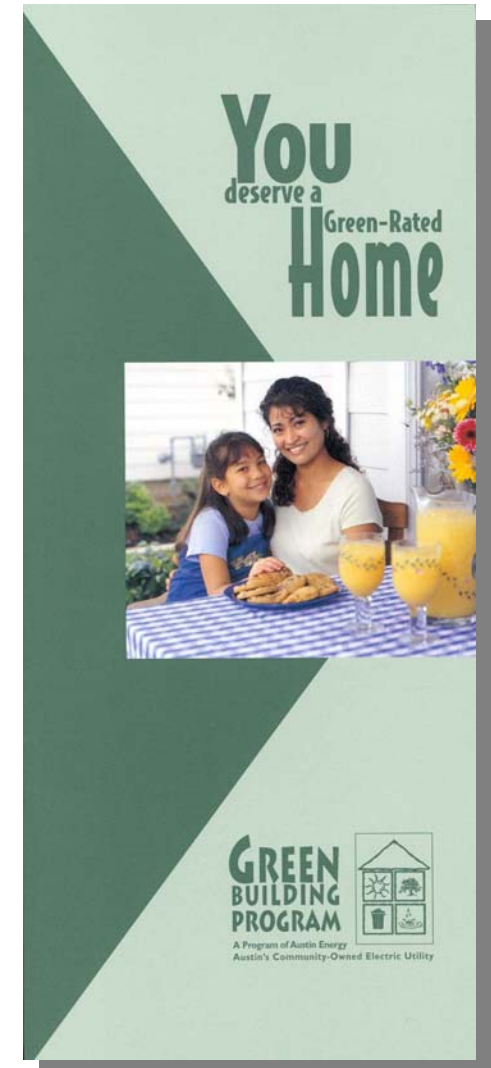


GREEN BUILDING PROGRAM

■ Results

Fiscal Year 2003-2004 Direct Energy Results

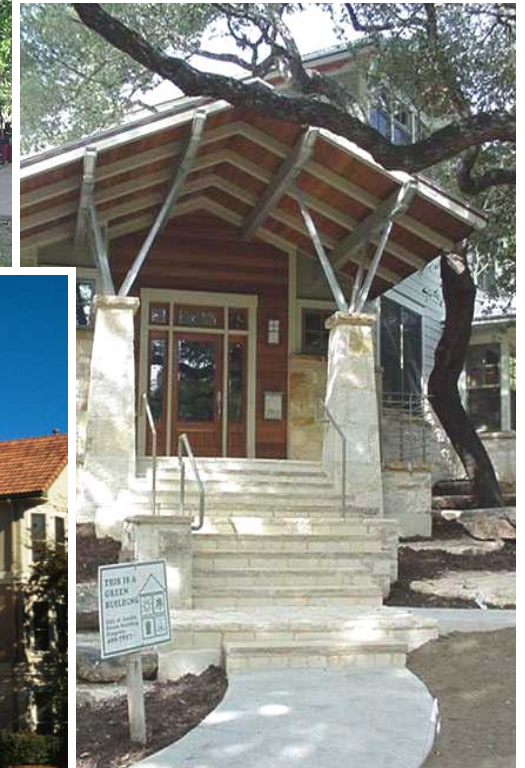
- **754** homes rated (**23%+** of all new homes in AE service area) 3 commercial buildings
- **12.4 mW** peak load reduction
- **24,010 MWH** energy savings for customers



GREEN BUILDING PROGRAM

■ Single-Family and Multi-Family Residential

- Over **5,000** single-family homes rated
- 4,152 multi-family units rated
- GBP rating required for **all** affordable housing
- ***Green by Design*** workshop for the public



GREEN BUILDING PROGRAM

■ Commercial

- Over 60 projects;
8 million+ sq. ft.
- Energy and emissions reductions
- Water conservation and water quality
- IEQ – Health and worker productivity
- Efficient material use



LCRA Service Center



San Jose Hotel

GREEN BUILDING PROGRAM

■ High Profile Projects

- Carr-America
 - 300 W. 6th. St.
 - Braker Pointe III
- Tivoli/IBM Campus
- ARCH
 - AIA/COTE 2005 Green Project Award



300 W 6th



ARCH

GREEN BUILDING PROGRAM

■ Current Projects

- Dell/Seton Children's Hospital/Medical Ctr.
- RMMA buildout
- 721 Congress Ave.
- SouthPark Meadows/
Endeavor
- U.T. Hotel &
Conference Center
- Lowes Sunset Valley



Dell/Seton Children's Hospital Site

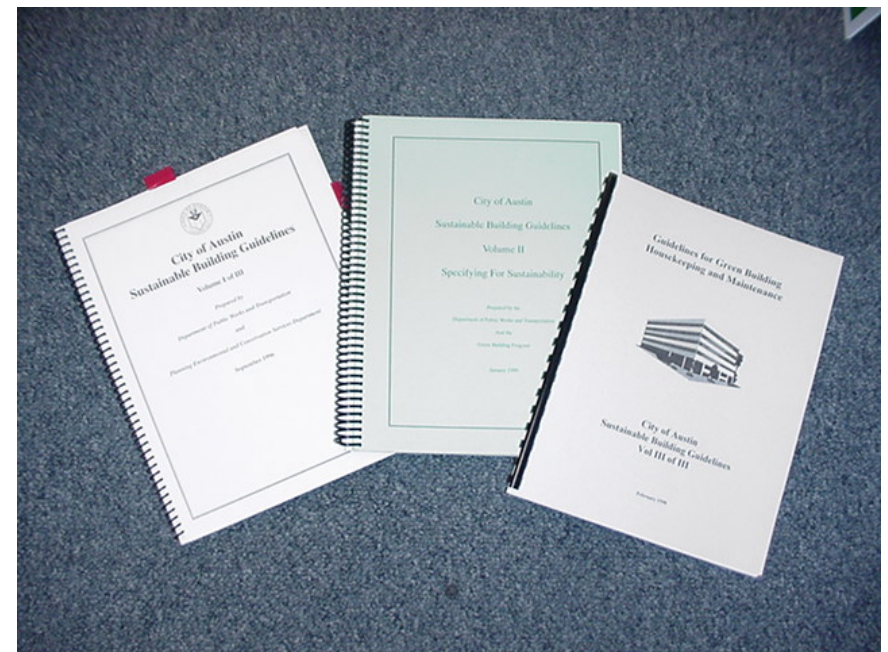
PUBLIC WORKS: Municipal Buildings



1994—A City Council Resolution instructed Public Works and the Green Building Program to develop **Sustainable Building Guidelines** for municipal projects.

Three Volumes:

- **Principles of Sustainability**
- **Specifications Guidelines**
- **Operations/Maintenance**

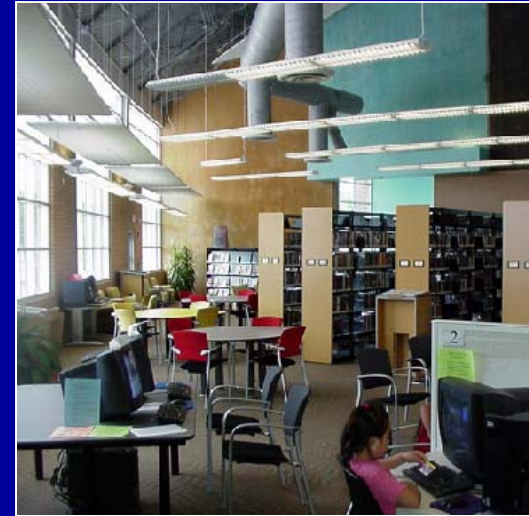


MUNICIPAL BUILDINGS PROJECTS

■ Sustainable Building Guidelines



- Austin Bergstrom International Airport
- Convention Center Deconstruction and Expansion
- St. John's Community Center
- Harris Ridge Fire & EMS Station
- Municipal Annex Deconstruction Project
- Robert Mueller Airport Deconstruction Project
- Ruiz Branch Library
- Yarborough Branch Library



St. John's Community Center

PUBLIC WORKS:

Municipal Buildings



- **1998 Bond Cycle Addition**
Municipal projects have a line item of **5%--15% of the construction budget** for sustainability.
- **2000 City Council Resolution**
Requiring new municipal projects to meet **LEED™ Silver Certification**



MUNICIPAL BUILDING PROJECTS

■ LEED™ Registered Projects



- Austin Energy Sand Hill
- Austin Combined Emergency Center
- George Washington Carver Museum & Cultural Center and Carver Branch Library
- 3 Fire Stations
- Colony Park and Gus Garcia Rec. Centers



Austin City Hall

GREEN BUILDING PROGRAMS

■ *Manage it Green* Consulting

- **CA Public Utilities Commission**
Program Development
- **Memphis Light, Gas & Water**
Program Development
- **TX Department of Corrections**
Plan Review
- **US Army - Fort Hood**
Training & Project Consulting
- **ICFConsulting/EPA**
TX Energy Star Training



**Austin—
Greening As It Grows**